EXHIBIT A

Microsoft

May 9, 2011

The Honorable Fred Upton
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Greg Walden
U.S. House of Representatives
2182 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Lee Terry
U.S. House of Representatives
2331 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Mary Bono Mack
U.S. House of Representatives
104 Cannon House Office Building
Washington, D.C. 20515

The Honorable Marsha Blackburn
U.S. House of Representatives
217 Cannon House Office Building
Washington, D.C. 20515

Dear Chairman Upton, Chairman Walden, Chairwoman Bono Mack, Vice Chair Terry, and Vice Chair Blackburn:

Thank you for the opportunity to respond to your letter of April 25, 2011, in which you seek information about the extent to which smart phones running the Microsoft Windows Phone 7 operating system may collect, use, store and share location data.

The explosive growth of smart phones, the applications they use, and the technologies on which they rely has brought with it tremendous social and economic benefits. Indeed, in the span of just a few short years, the smart phone has become an indispensable device for many consumers. An important part of what makes the smart phone so compelling is the availability of feature-rich location services. Put simply, knowing the general location of a smart phone can help deliver more useful and relevant experiences to users. For instance, location data can facilitate more relevant search results, provide information such as local movie options and directions to the nearest coffee shop, and help a user find nearby friends for an impromptu get together.

To provide these rich experiences, Microsoft collects limited information necessary to determine the approximate location of a device. Collection is always with the express consent of the user and the goal of our collection is never to track where a specific device has been or is going. Rather, our goal when providing users -- or, more specifically, the location-based

applications they select -- with this service is to find landmarks (typically nearby WiFi access points and cell towers) that help us determine the approximate location of a device more quickly and accurately.   Microsoft recognizes that consumers should have control over the location information they share and that the information collected should be narrowly tailored to support specific experiences on Windows Phone 7 devices. Therefore, Microsoft designed the location based services on Windows Phone 7 with the following principles in mind:

1. **User Choice and Control.** Microsoft does not collect information to determine the approximate location of a device unless a user has expressly allowed an application to collect location information.   Users that have allowed an application to access location data always have the option to access to location at an application level or they can disable location collection altogether for all applications by disabling the location service feature on their phone.

2. **Observing Location Only When the User Needs It.** Microsoft only collects information to help determine a phone's approximate location if (a) the user has allowed an application to access and use location data, and (b) that application actually requests the location data.   If an application does not request location, Microsoft will not collect location data.

3. **Collecting Information About Landmarks, Not About Users.** Microsoft's collection of location data is focused squarely on finding landmarks that help determine a phone's location more quickly and effectively.   In our case, the landmarks we use are nearby WiFi access points and cell towers. The information we collect and store helps us determine where those landmarks are, not where device users are located. In fact, we've recently taken specific steps to eliminate the use and storage of unique device identifiers by our location service when collecting information about these landmarks. Without a unique identifier, or some other significant change to our operating system or practices, we cannot track an individual device.

4. **Transparency About Microsoft's Practices.**   Microsoft gives consumers opportunities to learn more about its location data collection practices. When the user makes a decision to allow an application to access and use location data, Microsoft provides a link to the Windows Phone Privacy Statement, [1] which includes its own section on location services with information describing the data Windows Phone 7 collects or stores to determine location, how that data is used, and how consumers can enable or disable location-based features. Additionally, at the time Windows Phone 7 launched last November, Microsoft published a consumer-friendly Q&A in the "Help and How-To" section of its Windows Phone website to

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[1] *See* http://www.microsoft.com/windowsphone/en-us/privacy.aspx

address commonly-asked questions about location services and consumer privacy.[2] This Q&A provides detailed information on how location services work for Windows Phone 7, the data Microsoft collects to provide location services, and step-by-step instructions (as well as diagrams) on how to enable and disable location services on Windows Phone 7 and the methods Microsoft uses to assemble and maintain its location database. Prior to launch of Windows Phone 7, Microsoft proactively engaged with various government and consumer organizations to start constructive dialogues regarding our location data collection and use practices.

We believe that our careful and deliberate approach to user privacy in the development of the Windows Phone 7 operating system reflects Microsoft's commitment to give users informed choice about the collection and use of location information and to facilitate the delivery of device location information solely at the user's request and solely for the user's benefit. We believe that, when designed, deployed and managed responsibly, the location-based feature of a mobile operating system should function as a tool for the user and the applications he or she elects to use, and not as a means to generate a database of sensitive information that can enable a party to surreptitiously "track" a user.

With this information as background, Microsoft responds below to your specific questions.

1. What location data do devices running your operating system track, use, store, or share?

The collection and use of location data by smart phones can serve a variety of purposes. It therefore is worth clarifying at the outset that the term "location data" can refer to two related but conceptually distinct categories of data: (1) data that is used to determine the approximate location of a device for use by an application; and (2) data that identifies specifically where a device is or has been. The Windows Phone 7 operating system is designed to focus squarely on the first category, and we have taken steps to avoid collecting the type of data described in the second category, which can facilitate user tracking.

When an application on a Windows Phone requests the device's location data to provide a service, the Windows Phone is capable of determining its approximate location based on its proximity to nearby WiFi access points or cell towers, or based on Global Positioning System (GPS) coordinates. The location data that is observed and collected by the Windows Phone 7 operating system to determine the approximate location of the device can depend on a variety of factors, including the device's settings, battery power, signal detection capability (*e.g.*, whether in an "urban canyon" or a more open area), and the level of location precision

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[2] *See* http://www.microsoft.com/windowsphone/en-us/howto/wp7/web/location-and-my-privacy.aspx.

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that the application requests. If the Windows Phone is WiFi-enabled, the Media Access Control (MAC) addresses and signal strength of the WiFi access points detected by the phone may be collected by the Windows Phone 7 operating system to determine the phone's approximate location. If a Windows Phone is connected to a cellular network, then identifiers of the cell towers available to the phone may be collected to determine the phone's location. And if GPS is the only location data that is available or is specifically sought by the requesting application, then the latitude, longitude, speed, and direction of the phone, as provided by the GPS, will be collected to determine the phone's location.

The Windows Phone 7 location service typically relies on WiFi access point or cell tower information to determine a phone's approximate location. Generally, location determined by WiFi access points and cell towers will be less precise than GPS. Windows Phone 7 generally relies upon WiFi access point or cell tower information to determine a phone's approximate location because GPS location data is not always available, and when it is, it can draw more heavily on battery power and may take longer to respond to a request for location. Because the Windows Phone 7 operating system is designed to help the user effectuate his or her immediate objectives quickly and efficiently, GPS data is collected only when available WiFi access point or cell towers are not able to resolve a request or a user-authorized requesting application demands it.

To determine the approximate location of a Windows Phone based on the WiFi access point or cell tower information detected by the device, that data must be compared against a database that Microsoft maintains that correlates such information to latitude and longitude data. We may store a portion of our WiFi access point and cell tower database on the phone in order to resolve location requests without making a request to our database, which resides in the cloud and thus can take more time and result in data usage. This snippet of our database is only stored on a user's phone if a user-authorized application has made a request for location and benefits the user by allowing subsequent requests for location in the same general area to be resolved quickly. This database snippet contains information about nearby WiFi access points and cell towers in the area (on average a 5-6 square kilometer area) where the user made the request. It does not show where a user is or has been within that area.

Regardless of the types of location data that *can* be collected, the Windows Phone 7 operating system will collect location data *only* if (1) the phone's location service capability is enabled, (2) the user has allowed an application to access and use location data; and (3) the user-authorized application actually requests location data.[3] If these three elements are satisfied, the approximate location of the device is provided to the application, so the application can provide its location aware features.

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[3] The only exception to this general rule is when a user makes a request to find their phone using the "Find My Phone" service from their online account. In that instance, the location of the device will be determined regardless of the state of the location service control on the device because we are attempting to honor the user's request to find their phone.

If a user has allowed an application to access location, only the approximate LAT/LONG, speed, direction and altitude of the phone are provided to the requesting application by Microsoft's location service. Information about the available cell towers, WiFi access points and device identifiers are not sent to applications by our location service. Because application providers have some discretion as to how they use location data once they receive it, Microsoft specifically recommends in the Windows Phone 7 Privacy Statement that users review the privacy policies and practices of the applications that they permit to access their phones' location information. Additionally, we require third party application developers who create applications that utilize our location services to, among other things: (1) provide an in-application control to disable use of location by the application; (2) obtain a user's opt-in consent before sharing location data with a third party; (3) use location data only as necessary to provide the location aware features of the application; and (4) make a privacy policy available to users describing the collection and use of location by the application.[4]

Similar to other operating systems, when Microsoft first designed and implemented location services for Windows Phone 7, it programmed its system to collect device identifiers and store them for a limited time. While collecting device identifiers can help assemble and refine a database of available WiFi access points and cell towers more quickly and effectively than without them, these identifiers have diminishing value over time. Given the declining utility of device identifiers, Microsoft recently discontinued its storage and use of device identifiers. Further, as part of its next scheduled update to existing Windows Phone 7 devices, updated devices will no longer send device identifiers to the location service and new phones arriving this fall will not send device identifiers to the location service.

2. Why does the device track, use, store, or share that data?

Microsoft believes that the ability of a mobile operating system to provide location data to user-authorized applications can result in substantial user benefits, so long as the provision of such data is undertaken responsibly, is adequately protected, and is the result of user choice, including sufficient user awareness, consent, and controls.

Windows Phone 7 collects, stores and uses location data so that it can meet the demands of users to provide location to user-authorized applications that offer location aware features. Applications rely on location data for many reasons. Mapping applications, for example, use location data to identify and provide turn-by-turn directions to a particular location. Other applications may use location data to help identify the nearest retail store, restaurant or coffee shop. Still other applications may use location data to locate friends who

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[4] *See* http://download.microsoft.com/download/A/B/A/ABA09BC7-8338-4C04-9DA9-1224CD575636/Windows%20Phone%207%20Application%20Certification%20Requirements.pdf.

may be traveling in the vicinity. For example, a user may download an application that provides movie reviews, trailers and helps the user find the closest cinema to buy tickets.

3. *Where on the device is the data stored; how is it used, stored, or shared; how is it protected?*

There are three instances in which location data may be stored on the phone. The first instance is when a user has expressly enabled the "Find My Phone" feature on the phone or made a request to find the phone from the user's online account. This feature allows a user to remotely find the current location of the phone in the event it is lost. To provide this feature, only the last observed location of the device is stored on the phone, which is updated approximately every six hours.

The second instance is when we download a portion of our database of known WiFi access points and cell towers to the phone. We do this so that we can quickly respond to a user-authorized application request for location. It is impractical to store the entire database locally on the phone, but small portions of the database that show nearby WiFi access points and cell towers can resolve requests for location more quickly because the request would not need to be made to our cloud based database. This information on the phone is protected so that only the location service can access it. No other applications or phone functions have access to this data and this data is not transferred to a user's personal computer when a user tethers or connects their device. The only time this data would be transferred to a user's personal computer is when the user creates an encrypted backup as part of the process of updating the phone.   Again, this temporary storage of a portion of our location database occurs only if location services are enabled and a user-authorized application makes a request for location. Further, it only shows nearby WiFi access points and cell towers over a roughly 5-6 square kilometer area. It does not show where a user is or has been within that area. We also limit the amount of data that can be stored from this database on the phone.

The third instance in which location data may be stored on the phone is when data about nearby WiFi access points and cell towers is temporarily stored as part of our efforts to update and improve our database of available WiFi access points and cell towers. For example, a user may be using his or her movie application to find local movie times in a location where we have outdated or little to no information about nearby WiFi access points and cell towers. In those cases, Microsoft uses GPS to help provide location to the requesting application and also will look for the WiFi access points and cell towers that the device can detect from that location. The information about nearby WiFi access points and cell towers along with the corresponding GPS coordinates are temporarily stored on the device and are sent encrypted over HTTPS the next time the device either: (1) makes another request for location, or (2) the user connects to WiFi. Similar to the location data stored on the phone in the second instance, this is data that is used to determine the location of nearby WiFi access points and cell towers, not the location of a user. This data is not transferred to a personal computer and is encrypted when transmitted to Microsoft. Further, this data is not stored on a file on the device and is not designed to be accessible by any applications or features of the phone. The storing and

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sending of this data about nearby WiFi access points and cell towers is used to update and improve our location database, so that the next time a device makes a request for location in that same area, our location service can provide location without relying on GPS.

4. How is that data accessible and who can access it? Is the data automatically transferred to your company or to other devices, or to third parties? If so, how and why? Is there any other manner in which the data can be transferred to or obtained by your company, or by other devices, or by third parties and, if so, how and why?

The location data stored on the phone is only accessed and used by Microsoft to calculate the location of a phone and provide it to user-authorized applications requesting location. The information stored on the phone is not made available to applications, other features of the phone or to third parties. Whenever this data is transferred from the phone to Microsoft, it is sent encrypted over HTTPS. The only time any of the data is transferred to a personal computer is when an encrypted backup of the phone is made when a user chooses to update a phone.

5. Is the user informed of, or given an opportunity to prevent, such tracking, use, storing, or sharing or data and, if so, how? Can the end-user disable the tracking, use, storing, and sharing of such data? Can the user delete the data?

A user must expressly allow an application to access and use location and such applications must actually request location before Windows 7 Phone can attempt to determine a device's location. Our Privacy Statement provides step-by-step instructions on how a user can enable or disable access to a phone's location information for a specific application, or enable or disable access to a phone's location information for all applications. If the location services on the phone are disabled or if a user-authorized application is not making a specific request for location, Microsoft will not collect, use or store any information used to determine the location of a device. Specific instructions for enabling and disabling the location services feature on a Windows 7 Phone is provided in our Privacy Statement,[5] and this same information (along with helpful diagrams) is provided in the "Help and How-To" section of the Windows Phone website.[6]

6. How long does the device store the data?

The length of storage of location data on a device depends on the unique circumstances of the device and the actions of the user. For example, heavy users of location services will have location data stored on the phone frequently uploaded or updated. Less frequent users may have data persist for a greater period of time, but at the same time, the data would be

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[5] *See supra,* note 1.

[6] *See supra,* note 2.

staler. In any event, other than the last known location of the phone used to provide the Find My Phone service, the location data that is stored on the phone is for the purpose of determining the location of nearby WiFi access points and cell towers, not the precise movements of users.   While we cannot give precise storage times for location data stored on the phone, we can describe the circumstances under which location data stored on the phone is deleted, transferred or updated from the phone.

The last know location of the phone that is stored if the user has enabled the "Find My Phone" service will be stored on the phone until the user disables the service. Again, only the last known location of the phone is stored on the phone (based on the last time the service requested location); there is no historical record of these observations stored on the phone.

The snippets of our database of WiFi access points and cell towers that are stored on the device to more quickly resolve location requests are set to expire after 10 days and will be removed from the device either: (1) the next time a request is made from the phone to that snippet data after the expiration date; or (2) the local storage limit for this data has been exceeded at which point all expired snippets are removed from the phone.

The data about nearby WiFi access points and cell towers used to update and improve our database only is stored until the next time the device either: (1) makes another request for location; or (2) the user connects to WiFi at which point the data are sent to Microsoft encrypted over HTTPS.

None of the data that is temporarily stored on the device to provide location based services is synced to a personal computer except as part of an encrypted backup that is created when a user chooses to update their device.

7. Section 222 of the Communications Act contains privacy provisions. Do those provisions apply to you? Should they? Does it make sense that similar information is afforded different privacy protections depending on what entity does the collecting and what service the data is collected from, especially since the entities collecting such information are increasingly competing against each other in today's information age?

The plain language of Section 222 of the Communications Act demonstrates that it applies only to providers of telecommunications services. Developers of mobile operating systems do not provide telecommunications services and thus are not subject to Section 222. Nevertheless, like many other entities that do not provide telecommunications services, developers of mobile operating systems (and providers of applications that run on those systems) are subject to similar privacy laws and regulations under Section 5 of the Federal Trade Commission Act -- laws and regulations to which providers of telecommunications services are not subject due to the "common carrier exemption" that applies to them under that Act. Developers of mobile operating systems and applications also are subject to state unfair and deceptive trade practice laws, which address privacy issues. And because mobile operating systems and applications typically are deployed globally, they also are subject to

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privacy laws and regulations outside the U.S., many of which contain far more restrictive provisions than Section 222 and do not apply to providers of telecommunications services that do not operate in those jurisdictions. Although Section 222 does not and should not apply to developers of mobile operating systems and applications, it nevertheless is worth noting that the operation of location services in the Windows Phone 7 operating system is consistent with the requirements of Section 222 (and, more specifically, Section 222(f)) because it does not disclose location information without the consent of the user.

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Again, Microsoft appreciates the opportunity to provide you with this information. Please direct any further questions regarding this matter to the undersigned.

Respectfully submitted,

Andy Lees
President, Mobile Communications Business

cc: The Honorable Henry A. Waxman, Ranking Member
        House Energy and Commerce Committee

        The Honorable Anna G. Eschoo, Ranking Member
        House Subcommittee on Communications and Technology

        The Honorable G.K. Butterfield, Ranking Member
        House Subcommittee on Commerce, Manufacturing and Trade

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